

### **REMARKS**

Applicants respectfully request reconsideration of the present Application. Claims 1, 43, and 47 have been amended herein, and claims 7 and 9 have been canceled herein. Care has been exercised to introduce no new matter. Claims 1-6, 12-18, 42, 43, 46, and 47 are pending and are in condition for allowance.

### **Objections**

Claim 43 was objected to for informalities. More specifically, the Office Action states that the feature “examining the consecutiveness of repeating characters” lacks antecedent basis. In response, Applicants have amended claim 43 herein to remove the “examining the consecutiveness of repeating characters” portion of the feature. Accordingly, Applicants believe the objection to claim 43 has been overcome and respectfully requests withdrawal of the rejection.

### **Rejections based on 35 U.S.C. § 101**

Claims 1-7, 9, 12-17, and 47 were rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. Claims 7 and 9 have been canceled herein and, as such, the rejection of claims 7 and 9 is rendered moot.

The United States Supreme Court has recognized that the expansive language of 35 U.S.C. § 101 includes as statutory subject matter “anything under the sun that is made by man.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09 (1980). The USPTO has adopted the Supreme Court’s interpretation and has stated that, in practice, the complete definition of the scope of 35 U.S.C. § 101 “is that any new and useful process, machine, manufacture or composition of matter under the sun that is made by man is the proper subject matter of a

patent.” MPEP 2106(IV)(A). More specifically, the MPEP states that “computer programs are often recited as part of a claim.” MPEP 2106.01(I). In considering such claims, “USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim.” *Id.*; *see also In re Beauregard*, 53 F.3d 1582 (Fed. Cir. 1995). “The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program.” MPEP 2106.01(I). Recently, in *Ex Parte Bo Li*, a decision by the Board of Patent Appeals and Interferences following *Bilski*, the Board deemed a computer implemented program to generate reports to be patent eligible subject matter. *See Ex Parte Bo Li*, Appeal 2008-1213 (BPAI 2008). As such, Beauregard claims remain patent eligible.

Claim 1 has been amended to recite a system comprising “a processing unit; and a memory for storing computer-executable instructions that when executed by the processing unit executes . . . .” Accordingly, Applicants respectfully submit that the amendment overcomes the rejection of independent claim 1 and, as such, Applicants request withdrawal of the 35 U.S.C. § 101 rejection of claim 1. Claims 2-6 and 12-17 depend, either directly or indirectly, from independent claim 1. As such, each of claims 2-6 and 12-17 is believed to be in condition for allowance, at least by virtue of its dependency, and such favorable action is respectfully requested. *See* 37 C.F.R. § 1.75(c).

With regard to claim 47, Applicants respectfully submit that claims are not to be interpreted based on what one could construe; rather, claims are to be given

their broadest ***reasonable*** construction “in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004).

MPEP § 2111 (emphasis added). In light of Applicants' Specification, in which

- a) numerous "non-signal" examples of computer-readable media are listed,
- b) signals *per se* are never mentioned in context with computer-readable storage media, and
- c) nothing is disclosed that would suggest that signals *per se* are included in "computer-readable storage media,"

Applicants respectfully submit that one of ordinary skill in the art would **not** reasonably interpret "computer- readable storage media" to include signals *per se*. Nor has the Office provided any evidence that one of ordinary skill in the art would interpret "computer-readable storage media" as signals *per se*. To the extent the Office is taking official notice of this fact, Applicants respectfully request a reference to support the notion that an ordinary skilled artisan would read "computer- readable storage media" and think "signals *per se*," especially **in light of our Specification**.

Given the reasons described above with regard to "computer-readable storage media," Applicants respectfully submit that no one of ordinary skill in the art would interpret "computer- readable storage media" as including signals *per se*. Therefore, claim 47 is believed to be directed toward statutory subject matter, and Applicants respectfully request withdrawal of the § 101 rejection of claim 47.

#### **Rejections based on 35 U.S.C. § 112**

Claims 1-7, 9, 12-17 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. In particular, the Office Action indicates that "a component that receives ...and

extracts” in claim 1, “an analysis component” in claim 1, and “a machine learning system component” in claim 18 are indefinite for failing to particularly point and distinctly claim the subject matter. Applicants would like to point to FIG. 2 illustrating a feature extracting component 220, a feature analyzer component 240, and a training system (e.g., machine learning system) 260 that correspond to the claim features set forth in the Office Action. Further, the Specification, for example, at ¶¶[0040] – [0046] further discusses such features. As such, Applicants believe the 35 U.S.C. 112 rejection of claims 1-7, 9, and 12-17 should be withdrawn.

### **Rejections based on 35 U.S.C. § 103**

#### **A). Applicable Authority**

Title 35 U.S.C. § 103(a) declares, a patent shall not issue when “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” The Supreme Court in *Graham v. John Deere* counseled that an obviousness determination is made by identifying: the scope and content of the prior art; the level of ordinary skill in the prior art; the differences between the claimed invention and prior art references; and secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). To support a finding of obviousness, the initial burden is on the Office to apply the framework outlined in *Graham* and to provide some reason, suggestion, or motivation either in the prior art references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the prior art reference, or to combine prior art reference teachings, to produce the claimed invention. See, *Application of Bergel*, 292 F. 2d 955, 956-957 (1961). Recently, the Supreme Court elaborated, at pages 13-14 of the *KSR* opinion, that “it will be necessary for [the Office] to look at interrelated teachings of multiple [prior art references];

the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by [one of] ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the [patent application].” *KSR v. Teleflex*, 127 S. Ct. 1727 (2007).

B). Rejection of Claims 1, 2, 4, 6, 7, 12-14, 16, and 18

Claims 1, 2, 4, 6, 7, 12-14, and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2004/0102366 to Kirsch (hereinafter the “Kirsch reference”) in view of “SpamAssassin – Tests Performed” (hereinafter “SpamAssassin”) and further in view of “Multipurpose Internet Mail Extensions” by Freed (hereinafter “Freed”). Claim 7 is canceled herein and, as such, the rejection of claim 7 is rendered moot. As the Kirsch, SpamAssassin, and Freed references, either alone or in combination, fail to teach or suggest all of the features of the rejected claims, as amended herein, Applicants respectfully traverse this rejection, as hereinafter set forth.

Independent claim 1 recites, among other things, an analysis component that examines (1) consecutiveness of characters within a subject line of the message, wherein the analysis component establishes ranges of consecutive, repeating characters, the ranges corresponding to varying degrees of spaminess, whereby messages can be sorted by their respective individual count of consecutive repeating characters and, (2) a content type of the message for spam in connection with building a filter, wherein the content type describes a type of data contained within a body of the message, the content type being case-sensitive and comprising a primary content-type, a secondary-content type, or a combination thereof, the primary content-type and the secondary-content type comprising at least one of a text, a multipart, a message, an image, an audio, a video, or an application, wherein the analysis

component compares the content type of the message to stored content types of a plurality of other messages to facilitate determining whether the message is spam.

It is respectfully submitted that the cited references fail to teach or suggest an analysis component that examines (1) consecutiveness of characters within a subject line of the message, wherein the analysis component establishes ranges of consecutive, repeating characters, the ranges corresponding to varying degrees of spaminess, whereby messages can be sorted by their respective individual count of consecutive repeating characters. In the Office Action dated September 23, 2011, with respect to dependent claim 7, the SpamAssassin reference is relied on for establishing ranges of character frequencies, the ranges corresponding to various degrees of spamminess. The SpamAssassin reference, however, simply provides examples, such as “Message is 10% to 20% HTML” and “Message is 20% to 30% HTML.” *SpamAssassin*, pgs 9-10. A message being a percent range of HTML, however, is in stark contrast to ranges of consecutive, repeating characters that correspond to varying degrees of spaminess such that messages can be sorted by their respective individual count of consecutive repeating characters, as in amended independent claim 1.

Further, there is no teaching or suggestion in the cited references regarding an analysis component that compares the content type of the message to stored content types of a plurality of other messages to facilitate determining whether the message is spam. In the Office Action dated September 23, 2011, with respect to dependent claim 9, the Schipp reference is relied on for ostensibly teaching this feature. While the Schipp reference mentions “searching for recent similar messages,” there is no discussion in the Schipp reference regarding comparing the content type of the message to stored content types of a plurality of other messages to determine whether the message is spam, as in amended independent claim 1.

Accordingly, for at least the above reasons, it is respectfully submitted that the Kirsch, SpamAssassin, and Freed references, whether taken alone or in combination, fail to teach or suggest all of the features of independent claim 1, as amended herein. Each of claims 2, 4, 6, 12-14, and 18 depend, either directly or indirectly, from amended independent claim 1. Accordingly, it is respectfully submitted that the Glass, Kirsch, and Shipp references fail to teach or suggest all of the features of these claims for at least the above-cited reasons. As such, withdrawal of the 35 U.S.C. § 103(a) rejections of claims 1, 2, 4, 6, 12-14, and 18 is respectfully requested. Each of claims 1, 2, 4, 6, 12-14, and 18 is believed to be in condition for allowance and such favorable action is respectfully requested.

C). Rejection of Claim 3

Claims 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kirsch in view of SpamAssassin, Freed, and U.S. Patent No. 6,161,130 to Horvitz (hereinafter “Horvitz”). As the Kirsch, SpamAssassin, Freed, and Horvitz references, either alone or in combination, fail to teach or suggest all of the features of claim 3, Applicants respectfully traverse this rejection.

For at least the above reasons, it is respectfully submitted that the Kirsch, SpamAssassin, and Freed references, whether taken alone or in combination, fail to teach or suggest all of the features of independent claim 1, from which claim 3 depends. Further, the Horvitz reference fails to overcome the deficiencies of the Kirsch, SpamAssassin, and Freed references. Accordingly, it is respectfully submitted that the Kirsch, SpamAssassin, Freed, and Horvitz references fail to teach or suggest all of the features of claim 3 for at least the above-cited reasons. As such, withdrawal of the 35 U.S.C. § 103(a) rejections of claim 3 is respectfully

requested. Claim 3 is believed to be in condition for allowance and such favorable action is respectfully requested.

D). Claims 5, 42, and 43

Claims 5, 42, and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kirsch in view of SpamAssassin, Freed, and U.S. Publication No. 2008/0168145 to Wilson (hereinafter “Wilson”). As the Kirsch, SpamAssassin, Freed, and Wilson references, either alone or in combination, fail to teach or suggest all of the features claims 5, 42, and 43, Applicants respectfully traverse this rejection.

For at least the above reasons in association with independent claim 1, it is respectfully submitted that the Kirsch, SpamAssassin, and Freed references, whether taken alone or in combination, fail to teach or suggest all of the features of independent claim 1, from which claim 5 depends. Further, the Wilson reference fails to overcome the deficiencies of the Kirsch, SpamAssassin, and Freed references with respect to independent claim 1. Accordingly, it is respectfully submitted that the Kirsch, SpamAssassin, Freed, and Wilson references fail to teach or suggest all of the features of claim 5 for at least the above-cited reasons. As such, withdrawal of the 35 U.S.C. § 103(a) rejection of claim 5 is respectfully requested. Claim 5 is believed to be in condition for allowance and such favorable action is respectfully requested.

With respect to independent claim 42, independent claim 42, as amended herein recites, among other things, establishing ranges of consecutive, repeating characters, the ranges correspond to various degrees of spaminess, wherein each range comprises a number range of frequencies of the consecutive, repeating characters within the subject line of the message; employing the ranges to sort the message by the frequency of consecutive repeating characters



within the subject line of the message. It is respectfully submitted that the cited references fail to teach or suggest such features.

The Office Action relies on the SpamAssassin reference for establishing ranges of consecutive, repeating characters, the ranges correspond to various degrees of spaminess, wherein each range comprises a number range of frequencies of the consecutive, repeating characters within the subject line of the message; employing the ranges to sort the message by the frequency of consecutive repeating characters within the subject line of the message. The SpamAssassin reference, however, simply provides examples, such as “Message is 10% to 20% HTML” and “Message is 20% to 30% HTML.” *SpamAssassin*, pgs 9-10. A message being a percent range of HTML, however, is in stark contrast to establishing ranges of consecutive, repeating characters, the ranges correspond to various degrees of spaminess, wherein each range comprises a number range of frequencies of the consecutive, repeating characters within the subject line of the message; and employing the ranges to sort the message by the frequency of consecutive repeating characters within the subject line of the message, as in independent claim 42.

Accordingly, for at least the above reasons, it is respectfully submitted that the Kirsch, SpamAssassin, Freed, and Wilson references, whether taken alone or in combination, fail to teach or suggest all of the features of independent claim 42. Claim 43 depends from independent claim 42. Accordingly, it is respectfully submitted that the Kirsch, SpamAssassin, Freed, and Wilson references fail to teach or suggest all of the features of this claim for at least the above-cited reasons. As such, withdrawal of the 35 U.S.C. § 103(a) rejection of claims 42-43 is respectfully requested. Each of claims 42-43 is believed to be in condition for allowance and such favorable action is respectfully requested.

E). Rejection of Claim 9

Claims 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kirsch in view of SpamAssassin, Freed, and WO 02/071286 to Schipp (hereinafter “Schipp”). Claim 9 is canceled herein and, as such, the rejection of dependent claim 9 is rendered moot.

F). Rejection of Claim 15

Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kirsch in view of SpamAssassin, Freed, and U.S. Patent No. 7,016,939 to Rothwell (hereinafter “Rothwell”). As the Kirsch, SpamAssassin, Freed, and Rothwell references, either alone or in combination, fail to teach or suggest all of the features of claim 15, Applicants respectfully traverse this rejection.

For at least the above reasons, it is respectfully submitted that the Kirsch, SpamAssassin, and Freed references, whether taken alone or in combination, fail to teach or suggest all of the features of independent claim 1, from which claim 15 depends. Further, the Rothwell reference fails to overcome the deficiencies of the Kirsch, SpamAssassin, and Freed references. Accordingly, it is respectfully submitted that the Kirsch, SpamAssassin, Freed, and Rothwell references fail to teach or suggest all of the features of claim 15 for at least the above-cited reasons. As such, withdrawal of the 35 U.S.C. § 103(a) rejections of claim 15 is respectfully requested. Claim 15 is believed to be in condition for allowance and such favorable action is respectfully requested.

G). Rejection of Claim 17

Claim 17 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kirsch in view of SpamAssassin, Freed, and U.S. Patent No. 7,882,193 to Aronson (hereinafter “Aronson”). As the Kirsch, SpamAssassin, Freed, and Aronson references, either alone or in

combination, fail to teach or suggest all of the features of claim 17, Applicants respectfully traverse this rejection.

For at least the above reasons, it is respectfully submitted that the Kirsch, SpamAssassin, and Freed references, whether taken alone or in combination, fail to teach or suggest all of the features of independent claim 1, from which claim 17 depends. Further, the Aronson reference fails to overcome the deficiencies of the Kirsch, SpamAssassin, and Freed references. Accordingly, it is respectfully submitted that the Kirsch, SpamAssassin, Freed, and Aronson references fail to teach or suggest all of the features of claim 17 for at least the above-cited reasons. As such, withdrawal of the 35 U.S.C. § 103(a) rejections of claim 17 is respectfully requested. Claim 17 is believed to be in condition for allowance and such favorable action is respectfully requested.

H). Rejection of Claim 46

Claim 46 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kirsch in view of SpamAssassin, Freed, Wilson, and Schipp. As the Kirsch in view of SpamAssassin, Freed, Wilson, and Schipp references, either alone or in combination, fail to teach or suggest all of the features of claim 46, Applicants respectfully traverse this rejection.

For at least the above reasons, it is respectfully submitted that the Kirsch, SpamAssassin, Freed, and Wilson references, whether taken alone or in combination, fail to teach or suggest all of the features of independent claim 42, from which claim 46 depends. Further, the Schipp reference fails to overcome the deficiencies of the Kirsch, SpamAssassin, Freed, and Wilson references. Accordingly, it is respectfully submitted that the Kirsch, SpamAssassin, Freed, Wilson, and Schipp references fail to teach or suggest all of the features of claim 46 for at least the above-cited reasons. As such, withdrawal of the 35 U.S.C. § 103(a)

rejections of claim 46 is respectfully requested. Claim 46 is believed to be in condition for allowance and such favorable action is respectfully requested.

I). Claim 47

For at least some of the above-noted reasons set forth, Applicants believe independent claim 47 is in condition for allowance and such favorable action is respectfully requested. In addition, independent claim 47 includes other features not taught or suggested by the Kirsch, SpamAssassin, Freed, Wilson, and Rothwell references. For example, none of the cited references teach or suggest (1) determining a particular portion of a body of the message to analyze; and (2) determining at least one of a percentage of white space to non-white space in the message. The Office Action relies on the SpamAssassin reference for the feature of determining a particular portion of a body of the message to analyze. In particular, the Office Action cites “mailto URI includes removal text” of the SpamAssassin reference. Such a “test” described in the SpamAssassin reference is very different from determining a *particular portion of a body of a message to analyze*, as recited in independent claim 47.

Further, it is respectfully submitted that the cited references do not teach or suggest determining a percentage of white space to non-white space in the message, as in independent claim 47. In the Office Action, the Rothwell reference is cited as showing such a feature. *See* Office Action, pg. 21. Specifically, the Rothwell reference mentions “[n]umber of whole words capitalized to total words ratio.” *See* Rothwell, col. 5, lines 10-16. A ratio of number of whole capitalized to total words is very different from determining a percentage of white space to non-white space in the message, as in independent claim 47.

### **CONCLUSION**

For at least the reasons stated above, claims 1-6, 12-18, 42, 43, 46, and 47 are now in condition for allowance. Applicants respectfully request withdrawal of the pending rejections and allowance of the claims. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned – 816-559-2104 or [kfeimster@shb.com](mailto:kfeimster@shb.com) (such communication via email is herein expressly granted) – to resolve the same. It is believed that no fee is due, however, the Commissioner is hereby authorized to charge any amount required to Deposit Account No. 19-2112, with reference to Attorney Docket Number 307141.01/MFCP.149222.

Respectfully submitted,

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